

WHAT IS CLAIMED IS:

1. A solenoid-operated valve comprising a stator having a yoke and a core arranged serially in axial alignment with each other; a plunger received in said stator to be slidably guided in an inner bore formed in at least one of said yoke and said core and urged by a spring in one direction; an electromagnetic coil for energizing said stator to move said plunger axially against said spring; a valve sleeve attached to an outer end portion of said core; a spool received slidably in a valve hole of said valve sleeve and connected to said plunger through a rod portion thereof passing through a center hole of said core to be movable together with said plunger; an electromagnetic section fluid chamber defined by a forward end of said plunger at the side of said valve sleeve and said inner bore of said core; an intermediate fluid chamber formed between said core and said valve sleeve and partly defined by an end surface of a land portion which is formed on said spool at the side of said core; and a clearance between said center hole and said rod portion for making said electromagnetic section fluid chamber and said intermediate fluid chamber communicate with each other; and a rear end fluid chamber formed between a rear end surface of said plunger and said inner bore of said yoke and variable in its volume with movement of said plunger; wherein the diameter of said plunger is chosen to be the same as that of said land portion and wherein said rear end fluid chamber communicates with the external of said solenoid-operated valve through a supply/drain passage.

2. The solenoid-operated valve as set forth in Claim 1, wherein the mid portion of said land portion communicates with a drain port formed in said valve sleeve.

3. The solenoid-operated valve as set forth in Claim 1, wherein said stator further includes a cover which covers the external surfaces of said yoke and said core thereby to magnetically connect the opposite end portions of said yoke and said core, and wherein said supply/drain passage is defined by a hollow groove formed on at least one of an inner bottom surface of said cover and the rear end surface of said yoke which are kept in abutting engagement with each other.

4. The solenoid-operated valve as set forth in Claim 3, wherein said

supply/drain passage takes the form of a labyrinth.